

REMARKS

Favorable reconsideration is respectfully requested.

Upon entry of the above amendment, the claims will be 1-7 and 9-11.

The above amendment is responsive to points set forth in the Official Action.

With regard to the objection to the drawings in Official Action paragraph 1, the specification has been amended to point out that the pigment in Fig. 5 can be carbon black alone or with a further pigment i.e., a coloring pigment such as a red or blue pigment.

Claims 1-4 and 7 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Murakami, JP 63-276540, in view of Baker et al., U.S. 5,200,477 in Official Action paragraph 3. This rejection is respectfully traversed.

Murakami discloses an attachment film comprising a transparent substrate (1) and an adhesive layer (3) containing powder dispersed therein, and Baker et al. disclose that a carbon black having an average particle diameter of from 1 to 100 nm and a specific surface area of from 30 to 1,500 m²/g can be present in the adhesive layer.

The present invention provides an attachment film for an electronic display, which is for adjusting the quantity of transmitted light from a light source and adjusting the black and white contrast, which comprises an adhesive layer which is re-separable and contains carbon black having a pH of 4 or less dispersed therein and contains an acrylic adhesive having a carboxyl group and/or a hydroxyl group and is formed on one surface of a transparent substrate. (see page 8, lines 17-18 of the present specification.)

Murakami discloses an attachment film comprising a transparent substrate and an adhesive layer containing powder dispersed therein.

However, Murakami does not at all disclose or suggest that the adhesive layer has a property of being re-separable, that the adhesive layer contains an acrylic adhesive having a carboxyl group and/or a hydroxyl group, and that the powder to be contained is an acidic carbon black having a pH of 4 or less.

Thus, Murakami describes that "preferred are binder resins containing alkyl-etherified melamine, a butyral resin and alkyl acid phosphate and optionally containing a ketone resin as required, disclosed in JP-A-60-92850".

JP-A-60-92850 discloses alkyl-etherified melamine, a butyral resin, alkyl acid phosphate and a ketone resin. That is, JP-A-60-92850 discloses a reflection preventing laminate comprising (a) a polyethylene terephthalate film layer and (b) a 1 to 20 μm -thick layer of a mat clear coating composition cured product containing 100 parts by weight of alkyl-etherified melamine, 20 to 100 parts by weight of a butyral resin, 5 to 30 parts by weight of a ketone resin, 3 to 70 parts by weight of alkyl acid phosphate, 2 to 20 parts by weight of a silica fine powder having an average particle diameter of 5 to 100 μm and a curing catalyst (claim 1, JP-A-60-92850).

The mat clear coating composition cured product of JP-A-60-92850 is not re-separable. Further, Murakami describes that the adhesive layer is cured by drying. Unlike the present invention, the adhesive layer disclosed by Murakami does not have the property of being re-separable. Further, Murakami discloses only a silica fine powder as a powder.

Differences between Murakami and the present invention are produced because Murakami does not have the objective of attaining the function of adjusting the quantity of transmitted light from a light source and adjusting a black and white contrast.

Attached is a partial translation of Murakami for a better understanding of the invention thereof.

Baker et al. is directed to a process for preventing agglomeration of sticky polymers in a polymerization system which comprises adding to said polymerization system a specific amount of an inert particulate material having a surface coating thereon of an organo polydimethylsiloxane (claim 1).

Baker et al. disclose carbon black having a predetermined particle diameter and a predetermined surface area as an inert particle (claim 7).

The purpose, constitution and effect of Baker et al. are completely different from those of the present invention. Baker et al. disclose only a carbon black which partially overlaps the carbon black of the present invention in terms of a particle diameter and the like.

In contrast, the present invention is characterized in that the acid carbon black having a pH of 4 or less is used.

As is clarified by the Rule 132 Declaration (Experimental Report) attached hereto, owing to the use of the acid, carbon black having the above characteristics, excellent dispersibility is shown in the adhesive layer of the present invention, so that there is provided transparency necessary for adjusting the quantity of light from a light source and adjusting a black and white contrast.

Neither Murakami nor Baker disclose or teach the above functions and effects that are produced by the constitution of the present invention.

Further, it is impossible to arrive at the attachment film for an electronic display of the present invention by combining Murakami and Baker et al. Therefore, it is obvious that no one skilled in the art can arrive at the present invention from the combined teachings of Murakami and Baker.

The rejection states, concerning claims 3-4, that it would have been obvious to one of ordinary skill in the art at the time of the invention to employ red or blue pigment in the adhesive film because it is a common practice in the art for adjusting color display in a display device.

By forming the adhesive layer, which contains an acid carbon black having a pH of 4 or less and is re-separable, on the transparent substrate, the present invention has succeeded in providing an attachment film for an electronic display that has characteristics such as transparency, necessary for adjusting the quantity of light from a light source and adjusting a black and white contrast. It is impossible to provide the attachment film of the present invention merely by adding a blue or red pigment.

Claims 5-6 have been rejected in Official Action paragraph 4 as being unpatentable over Murakami in view of Baker et al., further in view of Kawazu et al. (U.S. 5,876,854).

The rejection states Murakami disclose all claimed subject matter except the attachment film being colored in neutral gray.

As stated above, Murakami does not at all disclose or suggest the stated elements or features of the present invention.

Kawazu et al. relates to glass articles covered with a UV absorbing, colored film which plates are particularly suitable for use as windows of vehicles such as automobiles and buildings (col. 1 pages 6-10).

The invention of Kawazu et al. is completely different from the attachment film for an electronic display in terms of usage. The purpose of the colored film of Kawazu et al. is that "the reflectance of the light should preferably be as small as possible within a predetermined range" (col. 3 lines 26-27).

The rejection states it would have been obvious to a person having ordinary skill in the art to make attachment film having color in neutral gray in order to assure correct color of the displayed image. However, Kawazu et al. do not at all teach that coloring can give correct color of a displayed image. Kawazu et al. only describes that it is suitable for adjusting glittering in a proper range.

Claim 8 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Murakami, JP 63-276540, in view of Baker et al., U.S. 5,200,477, further in view of Conforti et al., U.S. 5,620,819 and Ueda et al. U.S. 5,968,244.

This rejection is also respectfully traversed.

The rejection states regarding claim 8 Murakami disclose all claimed subject matter except adhesive layer containing an acrylic adhesive a carboxyl group and/or a hydroxyl group and the carbon black is an acidic carbon black.

The differences between Murakami and the present invention are as described in detail in the above discussion regarding Office Action paragraph 3.

Further, claim 8 has been incorporated into claim 1.

Conforti et al. discloses "The first adhesive layer 18 comprising a polymer having acidic groups, preferably carboxyl groups. On contact with the second adhesive layer 20, first adhesive layer 18 serves to develop rapidly substantial pre-curing and post-curing adhesion to the second adhesive layer 20, thus securing the first and second elements together to form the unitary laminar imaging medium 10." (col. 16, lines 53-60.) This adhesive layer does not have property of being re-separable.

Ueda et al. discloses an aqueous ink for ink-jet recording and disclose that the ink contains a carbon black, that the carbon black has carboxyl groups or hydroxide groups containing acidic hydrogen and that the carbon black is though to produce excellent dispersibility in water (col. 2, lines 49-57).

However, as described in the attached Experimental Report, it is impossible for one skilled in the art to forecast whether the carbon black having a pH of 4 or less is excellent in the dispersibility in the adhesive to such an extent that the object of the present invention can be attained.

Claims 9-10 have been rejected as being unpatentable over Murakami in view of Baker et al., further in view of Urano et al.

Urano et al. (U.S. 5,800,952) discloses a photopolymerizable composition for a color filter comprising at least a photopolymerization initiator system. The photopolymerizable composition accomplishes the function to improve the compatibility, the coating film-forming property, the developability, and the adhesive property (col. 2, lines 26-41).

However, the photopolymerizable composition disclosed by Urano et al. only mentions functions of the above composition as a binder at the time of film application. Urano et al. neither discloses nor teaches the functions and effects to be produced by the constitution of claim 1 of the present invention.

Accordingly, it is impossible to reach the present invention by combining Murakami with Baker et al. and Urano et al. Further, it is obvious that the present invention is not obvious from these teachings.

Claims 8-10 have been rejected as being unpatentable over Murakami in view of Baker et al., further in view of Komiyama et al.

Komiyama et al. (U.S. 5,356,949) discloses an adhesive tape suitable for use in dicing a semiconductor wafer into chips and die-bonding the chips on a lead frame (col. 1, lines 12-16).

Komiyama et al. discloses the adhesive layer 3 of the adhesive tape comprises a (meth) acrylate polymer and a photopolymerizable low molecular weight compound.

However, Murakami and Baker et al. do not disclose the constitution of claim 1, on which claims 8-9 depend. Therefore, it is obvious that the present invention can not be reached from these

teachings even though the adhesive layers of the present invention and Komiyama partially overlap each other.

For the forgoing reasons, it is apparent that the rejections on prior art are untenable and should be withdrawn.

No further issues remaining, allowance of this application is respectfully requested.

If the Examiner has any comments or proposals for expediting prosecution, please contact undersigned at the telephone number below.

Respectfully submitted,

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Version with Markings to Show Changes Made

IN THE CLAIMS:

1. (Four times Amended) An attachment film for an electronic display, which is for adjusting the quantity of transmitted light from a light source and adjusting the black and white contrast, which comprises an adhesive layer which is re-separable and contains carbon black having a pH of 4 or less dispersed therein and contains an acrylic adhesive having a carboxyl group and/or a hydroxyl group and is formed on one surface of a transparent substrate.

10. (Amended) The [A] attachment film according to claim 1 [9], wherein the adhesive layer contains a (meth) acrylate resin as an adhesive and a (meth) acrylate monomer or oligomer as the photopolymerizable compound.

11. (Amended) The [An] attachment film according to claim 1 [9], wherein the adhesive layer is formed on one surface of the transparent substrate and a hard coating layer and an anti-reflection layer are consecutively formed on the other surface of the transparent substrate.

IN THE SPECIFICATION:

Please replace the last paragraph between lines 23 and 25 of page 4, introduced by the Amendment dated November 28, 2001, with the following rewritten paragraph:

Fig. 5 depicts a film of the present invention as in Fig. 1 where adhesive layer 2 contains pigment [carbon black] 5 dispersed therein. The pigment can be carbon black alone or with a further pigment i.e., a coloring pigment such as a red or blue pigment.